Please provide the following information, and submit to the NOAA DM Plan Repository.

Reference to Master DM Plan (if applicable)

As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

1. General Description of Data to be Managed

   1.1. Name of the Data, data collection Project, or data-producing Program:
   2010 US Army Corps of Engineers (USACE) Joint Airborne Lidar Bathymetry Technical
   Center of eXpertise (JALBTCX) Topobathy Lidar: Northeast (MA, ME, NH, RI)

   1.2. Summary description of the data:
   These files contain topographic lidar and bathymetric data classified as ground (2),
   unclassified (1), and NOAA OCM bathymetry (11) in accordance with the American
   Society for Photogrammetry and Remote Sensing (ASPRS) classification standards.
   Rejected or invalid data is classified as noise (7). These data were collected by a
   HawkEye II (HEII) lidar sensor. The HEII integrates topographic and bathymetric lidar
   sensors, and a digital camera on a single remote sensing platform for use in coastal
   mapping and charting activities. Native lidar data is not generally in a format accessible
   to most Geographical Information Systems (GIS). Specialized in-house

   and commercial software packages are used to process the native lidar data into 3D
   positions that can be imported into GIS software for visualization and further analysis.
   Horizontal positions, provided in decimal degrees of latitude and longitude, are
   referenced to the North American Datum of 1983 (NAD83). For the topographic data,
   vertical positions were acquired to the NAD83 ellipsoid. The National Geodetic Survey's (
   NGS) GEOID09 model was used to transform the vertical positions from ellipsoid to
   orthometric heights referenced to the North American Vertical Datum of 1988 (NAVD88).
   The bathymetry files for this data set were received by NOAA OCM after the initial
   topographic files. The bathymetry files were added to the existing topographic data set.
   The bathymetry files were received in csv format and in geographic coordinates,
   referenced to the North American Datum of 1983 (NAD83). They were in ellipsoid
   heights, in meters. For data storage and Digital Coast provisioning, the NOAA OCM
   converted the topographic files to ellipsoid heights and the bathymetry files to las
   format. The bathymetry files were also classified as 11 (NOAA OCM bathymetry). The 3D
   position data are sub-divided into a series of files each covering approximately 5
   kilometers of shoreline.

   Original contact information:

     Contact Org: JALBTCX

Title: Data Production Manager

Phone: 228-252-1121

Email: JALBTCX@usace.army.mil

1.3. Is this a one-time data collection, or an ongoing series of measurements?
One-time data collection

1.4. Actual or planned temporal coverage of the data:
2010-05-24 to 2010-07-10

1.5. Actual or planned geographic coverage of the data:
W: -71.966003, E: -69.67242, N: 43.81846, S: 41.288632

1.6. Type(s) of data:
(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)

1.7. Data collection method(s):
(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)

1.8. If data are from a NOAA Observing System of Record, indicate name of system:

1.8.1. If data are from another observing system, please specify:

2. Point of Contact for this Data Management Plan (author or maintainer)

2.1. Name:
NOAA Office for Coastal Management (NOAA/OCM)

2.2. Title:
Metadata Contact

2.3. Affiliation or facility:
NOAA Office for Coastal Management (NOAA/OCM)

2.4. E-mail address:
coastal.info@noaa.gov

2.5. Phone number:
(843) 740-1202

3. Responsible Party for Data Management
Program Managers, or their designee, shall be responsible for assuring the proper management of

the data produced by their Program. Please indicate the responsible party below.

3.1. Name:

3.2. Title:
Data Steward

4. Resources
Programs must identify resources within their own budget for managing the data they produce.

4.1. Have resources for management of these data been identified?

4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):

5. Data Lineage and Quality
NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.

5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible
(describe or provide URL of description):
Process Steps:
- 2010-11-30 00:00:00 - These data were collected using a HEII system. The system collects topographic lidar data at 64kHz, bathymetric lidar data at 4kHz and RGB imagery at 1Hz. Aircraft position, velocity and acceleration information are collected using an Applanix POS A/V 410. All raw data are processed using AHAB's Coastal Survey Studio (CSS) software. Aircraft position data are processed using POSPac software and the results are combined with the lidar data to produce 3-D positions for each lidar shot. Fledermaus and GreenC Solutions software is used to inspect and QA/QC data, and anomalous data are flagged as invalid. Data are exported to LAS format using GreenC Solutions and imported to Terrascan for classification. A customized classification macro is used to distinguish ground points (2) and unclassified points (1). The classification results are reviewed and any misclassified points are manually edited. In areas of dense vegetation the bare ground points might be incorrectly classified due to the inability of the laser to penetrate the canopy and reach the bare ground. Classified data are exported from Terrascan and Blue Marble Desktop converts all classified LAS data from UTM to NAD83 geographic coordinates and NAVD88 heights using the Geoid 09 model.
- 2012-02-01 00:00:00 - The NOAA Office for Coastal Management (OCM) received topographic data in LAS v1.2 format. The files contained LiDAR elevation measurements. The data were received in geographic coordinates (NAD83) and vertically referenced to NAVD88 using the Geoid09 model. The vertical units of data were meters. The data were classified according to ASPRS LAS classification scheme

(1 = unclassified, 2 = ground). OCM performed the following processing for data storage and Digital Coast provisioning purposes: 1. The LAS files were converted from orthometric heights to ellipsoidal heights (GRS80) using Geoid 09. 2. The LAS data were sorted by latitude and the headers were updated.
- 2015-01-12 00:00:00 - The NOAA Office for Coastal Management (OCM) received the bathymetric data for this data set at a later date than the topographic data. The bathymetric data was processed to be included with the existing topographic data. The data were received in csv format, in geographic coordinates (NAD83) and were in ellipsoidal heights. The vertical units of data were meters. OCM performed the following processing for data storage and Digital Coast provisioning purposes: 1. The csv files were converted to las files. 2. The las points were classified as 11 (NOAA OCM bathymetry).

5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:

5.2. Quality control procedures employed (describe or provide URL of description):

6. Data Documentation
The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.

6.1. Does metadata comply with EDMC Data Documentation directive?
No

6.1.1. If metadata are non-existent or non-compliant, please explain:
Missing/invalid information:
- 1.6. Type(s) of data
- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
- 7.1.1. If data are not available or has limitations, has a Waiver been filed?
- 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or

deletion prior to receipt by the archive?

6.2. Name of organization or facility providing metadata hosting:
NMFS Office of Science and Technology

6.2.1. If service is needed for metadata hosting, please indicate:

6.3. URL of metadata folder or data catalog, if known:
https://www.fisheries.noaa.gov/inport/item/50089

6.4. Process for producing and maintaining metadata
(describe or provide URL of description):
Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf

7. Data Access
NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.

7.1. Do these data comply with the Data Access directive?

7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?

7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:

7.2. Name of organization of facility providing data access:
NOAA Office for Coastal Management (NOAA/OCM)

7.2.1. If data hosting service is needed, please indicate:

7.2.2. URL of data access service, if known:
https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=1174
https://coast.noaa.gov/htdata/lidar4_z/geoid18/data/1174

7.3. Data access methods or services offered:
This data can be obtained on-line at the following URL: https://coast.noaa.gov/dataviewer;

7.4. Approximate delay between data collection and dissemination:

7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:

8. Data Preservation and Protection

The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.

8.1. Actual or planned long-term data archive location:
(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)

8.1.1. If World Data Center or Other, specify:

8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:

8.2. Data storage facility prior to being sent to an archive facility (if any):
Office for Coastal Management - Charleston, SC

8.3. Approximate delay between data collection and submission to an archive facility:

8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?
Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection

9. Additional Line Office or Staff Office Questions
Line and Staff Offices may extend this template by inserting additional questions in this section.